

CLAIMS

What is claimed is:

- 5 1. An amplifier, comprising:
 a first stage and a second stage; and
 a first component and a second component coupled
 in series between the first and second stages, the
 first component selected to provide AC decoupling of
10 the first and second stages and the second component
 selected to provide for a stability of the amplifier.
2. The amplifier of claim 1, wherein the first
 component is an inductor.
- 15 3. The amplifier of claim 2, wherein the inductor
 has a value that is selected to decouple the first
 and second stages.
- 20 4. The amplifier of claim 3, wherein the value of
 the inductor is selected in response to a lowest
 desired operating frequency of the amplifier.
5. The amplifier of claim 1, wherein the second
25 component is a resistor.
6. The amplifier of claim 5, wherein the resistor
 has a value that is selected to maintain the
 stability of the amplifier.
- 30 7. The amplifier of claim 1, wherein the first and
 second stages comprise a common-source stage and a
 common-drain stage.

8. The amplifier of claim 7, wherein the first component is an inductor having a value that is selected to decouple a transistor in the common-source stage from a transistor in the common-drain stage.

9. The amplifier of claim 7, wherein the second component is a resistor arranged in series with a capacitor in a feedback circuit for the transistor in common-source stage.

10. The amplifier of claim 9, wherein the resistor is selected to provide the stability in the amplifier by causing a loss in the feedback circuit.

11. A method for decoupling a first and a second stage of an amplifier, comprising the steps of:
selecting a first component to provide AC decoupling of the first and second stages;
selecting a second component to provide for a stability of the amplifier; and
coupling the first and second component in series between the first and second stages.

12. The method of claim 11, wherein the step of selecting a first component comprises the step of selecting an inductor.

13. The method of claim 12, wherein the inductor has a value that is selected to decouple the first and second stages.

14. The method of claim 13, wherein the value of the inductor is selected in response to a lowest desired operating frequency of the amplifier.

5 15. The method of claim 11, wherein the step of selecting a second component comprises the step of selecting a resistor.

10 16. The method of claim 15, wherein the resistor has a value that is selected to maintain the stability of the amplifier.

15 17. The method of claim 11, wherein the step of coupling the first and second component in series between the first and second stages comprises the step of coupling the first and second component in series between a common-source stage and a common-drain stage.

20 18. The method of claim 17, wherein the first component is an inductor having a value that is selected to decouple a transistor in the common-source stage from a transistor in the common-drain stage.

25 19. The method of claim 17, further comprising the step of coupling the second component in series with a capacitor in a feedback circuit for the transistor in common-source stage.

30 20. The method of claim 19, wherein the second component is a resistor that is selected to provide the stability in the amplifier by causing a loss in

- 10 -

the feedback circuit.

Attorney Docket No.: 10030015